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P. 12

4/15/02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

I have the application of:

Bernard Etkin et al.

Serial No.: 09/995,336

Filed: November 27, 2001

For: GRAVITY GRADIOMETRY

Group Art Unit:

Examiner:

Attorney Docket: ETK 4910.1

Assistant Commissioner for Patents
Washington, D.C. 20231
USA

Dear Sir:

PRELIMINARY AMENDMENT

Please amend the application as follows:

In the Disclosure:

Please replace the paragraph beginning at page 12, line 11, with the following rewritten paragraph:

A1

-- Referencing FIG. 7, the inventors have noted that, ideally, the center of mass of each dumbbell 1102 in a crossed dumbbell gravity gradiometer will be exactly coincident with its center of rotation. This rotation occurs about a pivot, which can conveniently be in the form of a web connecting the dumbbell to the instrument body. In this case the web also acts as a torsion spring. Such a structure is described in U.S. Patent nos. 5,804,722, 5,505,555 and 5,668,315 issued to Van Kann. --

Please replace the paragraph beginning at page 16, line 23, with the following rewritten paragraph:

A2

-- Using the gravity gradiometer, e.g., as described by van Kann in U.S. patents 5,804,722, 5,505,555 and 5,668,315, mounted in the aircraft without an isolation system would, in these conditions, result in an estimated spurious signal that could exceed 10 Eö about 50% of the time, and 110 Eö, about 1% of the time. However, on the surface of the

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